Appendix 7B-1: Draft CERP Performance Measures

Two kinds of performance measures have been developed for the Comprehensive Everglades Restoration Plan (CERP). The two types are 1) evaluation and 2) monitoring and assessment. The draft evaluation performance measures are presented in Table 7b-1-1. The draft monitoring and assessment performance measures are presented in Table 7b-1-2.

Table 7b-1-1. Draft Evaluation Performance Measures

Number	Title	Source	Evaluation Tool	Target
NE1	St. Lucie Salinity Envelope	St. Lucie Estuary/ Indian River Lagoon CEM Stressor	SFWMM	No more than 10 extreme high flow (>3,000 cfs) events in a 31-year period of record and no more than 18 high flow (2,000- to 3,000-cfs) events in a 31-year period of record
NE2	Lake Worth Salinity Envelope	C&SF Restudy	SFWMM	Inflow to achieve 23-35 ppt salinity (0-500 cfs)
NE3	Caloosahatchee Estuary Salinity Envelope	Caloosahatchee Estuary CEM Stressor	SFWMM	Freshwater discharges from the C-43 canal at the S79 structure to be maintained between 300 and 2,800 cfs
LO1	Lake Okeechobee Extremes in Low Lake Stages	Lake Okeechobee CEM Stressor	SFWMM	No events below 11 ft; no events below 12 ft for >12 months
LO2	Lake Okeechobee Extremes in High Lake Stages	Lake Okeechobee CEM Stressor	SFWMM	No events above 17 ft; no event above 15 ft >12 months
LO3	Spring Recession for Lake Okeechobee	Lake Okeechobee CEM Stressor	SFWMM	Yearly stage decline from near 15.5 ft to near 12.5 ft, January to June, with no reversal >0.5 ft/month
GE1	Number and Severity of Dry Events for the Greater Everglades	Everglades Ridge and Slough CEM Stressor	SFWMM	NSM v5.0 target envelopes for Ridge and Slough indicator regions
GE2	Hydroperiod in the Greater Everglades	Everglades Ridge and Slough CEM Stressor	SFWMM	NSM v5.0 target envelopes for each landscape type
GE3	Extreme High and Low Events in the Greater Everglades	Big Cypress, Marl Prairie, and Everglades Ridge and Slough CEMs Stressor	SFWMM	NSM v5.0 target envelopes for each landscape type
GE4	Seasonal Amplitude and Interannual Variability of Water Levels in the Greater Everglades	Big Cypress, Marl Prairie, and Everglades Ridge and Slough CEMs Stressor	SFWMM	NSM v5.0 targets for multiyear patterns of amplitude and variability

Number	Title	Source	Evaluation Tool	Target
GE5	Overland Flow Volume, Velocity, Timing, and Distribution	Everglades Total System CEM Stressor	SFWMM	NSM v5.0 predictions of regional flow patterns in the remaining Greater Everglades
GE6	Water Depth Ranges Relative to Tree Island Elevation	Everglades Ridge and Slough CEMs Stressor	SFWMM	NSM 4.5 predictions of stages consistent with tree island health
GE7	Total System Phosphorous Levels	Greater Everglades CEM Stressor	ELM	Recover soil and water phosphorus concentrations consistent with predrainage periphyton and vegetation patterns
GE8	Total System Nitrogen Levels	Greater Everglades CEM Stressor	ELM	Recover water nitrogen concentrations consistent with predrainage periphyton and vegetation patterns
SE1	Surface Water Discharges to Biscayne Bay	Biscayne Bay CEM Stressor	SFWMM	Dry/wet season: Snake Creek - 93,100/66,5000 ac ft North Bay - 41,000/99,000 ac ft Miami River - 60,000/132,000 ac ft Central Bay - 83,000/161,000 ac ft South Bay - 68,000/158,000 ac ft
SE2	Florida Bay: Salinity in Coastal Basins Estimated from Upstream Water Stages	Florida Bay CEMs Stressor	SFWMM	Predicted stages at Gage NP67 and Gage P33 that produce lower and upper salinity levels in coastal basins. NP67 lower/upper Joe Bay - 2.63 ft/2.04ft Little Madeira Bay - 2.82 ft/2.02 ft Terrapin Bay - 2.91 ft/1.92 ft Garfield Bight - 2.99 ft/1.97 ft P33 lower/upper North River Mouth - 7.1 ft/6.2 ft
TS1	Continuity: Water Surface Elevations Across Barriers	Total System CEM Stressor	SFWMM	Minimize stage difference across selected barriers
WS1	Lake Okeechobee Service Area - Frequency of Water Restrictions	Florida Statutes 373.0361(2)(a)(1)	SFWMM	Provide at least a 1-in-10 level of service as indicated three or less water years simulated with water shortages in the 31-year period
WS2	Frequency of Water Restrictions for the Lower East Coast Service Area	Florida Statutes 373.0361(2)(a)(1)	SFWMM	Provide at least a 1-in-10 level of service as indicated three or less water years simulated with water shortages in the 31-year period
WS3	Potential for High Water Levels in South Miami-Dade Agricultural Area	C&SF Restudy	SFWMM	Water levels should lie below target stage duration curves, especially during wet periods (evaluation team made comparison at 10% frequency of stage duration)

Number	Title	Source	Evaluation Tool	Target
WS4	Prevent Saltwater Intrusion of the Biscayne Aquifer: Meet MFL Criteria for Biscayne Aquifer	Florida Statutes 373.044	SFWMM	Canal at Structure: Canal Stages C-51 at S-155: 7.80 ft NGVD C-16 at S-4: 7.80 ft NGVD C-15 at S-40: 7.80 ft NGVD Hillsboro Canal at G-56: 6.75 ft NGVD C-14 at S-37B: 6.50 ft NGVD C-13 at S-36: 3.80 ft NGVD North New River at G-54: 3.50 ft NGVD C-9 at S-29: 2.00 ft NGVD C-6 at S-26: 2.00 ft NGVD C-4 at S-25B: 2.20 ft NGVD C-2 at S-22: 2.20 ft NGVD
WS5	Prevent Saltwater Intrusion of the Biscayne Aquifer in South Miami-Dade County	C&SF Restudy	SFWMM	Canal at Structure: Canal Stage C-100A at S-123: 2.00 ft NGVD C-1 at S-21: 2.00 ft NGVD C-102 at S-21A: 2.00 ft NGVD C-103 at S-20F: 2.00 ft NGVD

Table 7b-1-2. Draft Monitoring and Assessment Performance Measures

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
NE1	St. Lucie Estuary Salinity Envelope	St. Lucie Estuary/ Indian River Lagoon CEM Stressor	Northern Estuaries	Reestablish a salinity range most favorable to juvenile marine fish, shellfish, oysters, and SAV; estimated at 12-20 ppt for oysters
NE2	Lake Worth Lagoon Salinity Envelope	C&SF Restudy	Northern Estuaries	Inflow to achieve minimum bottom salinity of 23 ppt during the wet season 0.5 mile north of the C-51 canal
NE3	Caloosahatchee Estuary Salinity Envelope	Caloosahatchee Estuary CEM Stressor	Northern Estuaries	Reestablish a salinity range most favorable to SAV, oysters, clams, juvenile fish habitat, and blue crabs
NE4	Loxahatchee Estuary Salinity Envelope	C&SF Restudy (?)	Northern Estuaries [Section to be transferred from other water quality]	
NE5	Nearshore Reef	St. Lucie Estuary/ Indian River Lagoon CEM Attribute	Northern Estuaries	Reduce siltation rates and salinity fluctuations in area and restore coral, fish, and macroinvertebrate community structures and biodiversity of reefs to 1970s baseline condition
NE6	Oysters	St. Lucie Estuary/ Indian River Lagoon and Caloosahatchee Estuary CEMs Attribute	Northern Estuaries	Increase the abundance and health of oysters in the St. Lucie and Caloosahatchee Estuaries; restore oyster beds in suitable habitat and maintain habitat function of oyster beds for fish, crabs, and birds in the Caloosahatchee Estuary
NE7	Estuarine Macroinvertebrates	St. Lucie Estuary/ Indian River Lagoon and Caloosahatchee Estuary CEMs Attribute	Northern Estuaries	Increase species richness, abundance, and diversity of benthic species in the St. Lucie Estuary to that typically found in a healthy estuarine community; obtain a normal distribution, population size, and condition across optimal salinity ranges for Rangia and Polymesoda in the low salinity areas of the Caloosahatchee Estuary

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
NE8	Estuarine Fish	St. Lucie Estuary/ Indian River Lagoon and Caloosahatchee Estuary CEMs Attribute	Northern Estuaries	Restore estuarine fish assemblages with abundance, taxonomic composition, diversity, and representation of life stages characteristic of targeted salinity regimes for each estuary; decrease fish abnormalities to less than 1% in the St. Lucie Estuary; maintain or enhance SAV habitat for juvenile fish
NE9	Estuarine Submerged Aquatic Vegetation	St. Lucie Estuary/ Indian River Lagoon and Caloosahatchee Estuary CEMs Attribute (Lake Worth, Loxahatchee?)	Northern Estuaries	Increase cover of SAV beds to areas of suitable habitat; maintain flows needed to achieve the proper salinity range for SAV
NE10	Manatee Population Abundance, Distribution, and Health	Caloosahatchee Estuary CEM Attribute (other estuaries?)	Northern Estuaries	Maintain and enhance current habitat and foraging areas for manatees in the Caloosahatchee Estuary and in canals to promote species recovery, especially near the Florida Power and Light warm water refugia
NE11	Nutrient Concentrations (TP and TN)	Caloosahatchee Estuary, St. Lucie Estuary, Loxahatchee Estuary and Lake Worth Lagoon Stressor	Northern Estuaries [section to be transferred from other water quality]	Maintain or reduce concentrations of TP and TN in the estuaries at or below state-recommended criteria or those established by applicable SWIM plans
NE12	Nutrient Loads (TP and TN)	Caloosahatchee Estuary, St. Lucie Estuary, Loxahatchee Estuary and Lake Worth Lagoon Stressor	Northern Estuaries [section to be transferred from other water quality]	Maintain or reduce current nutrient loads from inflows to the estuaries to increase cover of SAV and achieve future TMDL targets established for each estuary
NE13	Algal Bloom Frequency	Caloosahatchee Estuary, St. Lucie Estuary, Loxahatchee and Lake Worth Lagoons Stressor	Northern Estuaries [Section to be added]	Eliminate or reduce frequency of algal blooms and exceedances of chlorophyll *a* concentrations above 15 ppb
NE14	Water Clarity	Caloosahatchee Estuary, St. Lucie Estuary, Loxahatchee and Lake Worth Lagoons Attribute	Northern Estuaries [Section to be added]	Improve or cause no further degradation in existing water clarity to promote establishment of seagrasses and other SAV in estuaries

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
LO1	Lake Okeechobee Extremes in Low Lake Stages	Lake Okeechobee CEM Stressor	Lake Okeechobee [section to be added]	No events below 11 feet; no events below 12 feet for >12 months
LO2	Lake Okeechobee Extremes in High Lake Stages	Lake Okeechobee CEM Stressor	Lake Okeechobee [section to be added]	No events above 17 ft; no event above 15 ft >12 months
LO3	Spring Recession for Lake Okeechobee	Lake Okeechobee CEM Stressor	Lake Okeechobee [section to be added]	Yearly stage decline from near 15.5 ft to near 12.5 ft, from January to June, with no reversal >0.5 ft/month
LO4	Lake Okeechobee Native Vegetation Mosaic (Littoral Plant Communities)	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1 (1)	Reduction of exotic plants and cattail; increase in spatial extent of native marsh and upland plants
LO5	Lake Okeechobee Native Vegetation Mosaic (SAV and Bulrush)	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1(1) for bulrush and 2.4.1 (2) for SAV	Widespread dense beds of selective native submerged plants including Vallisneria and Potamogeton in the north, west, and south nearshore regions of the lake; expansion of bulrush community
LO6	Lake Okeechobee Fish and Aquatic Fauna (Fish and Invertebrates)	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1 (3); see GE 11	Increased diversity and extent of forage fish and pollutant-sensitive taxa of invertebrates
LO7	Lake Okeechobee Apple Snails and Snail Kite Population and Nesting	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1(3) for apple snails and 2.4.1 (4) for kites	Increased density and stability of snail kite population in the littoral zone; increase the average number of Snail Kite nests from the 1998-2000 value of 2.67 to a short-term value of approximately 9 nests/year and a long-term value of over 11 nests/year; have at least one chick fledge from more than 15% of the nests
LO8	Lake Okeechobee Wading Bird Feeding Aggregations and Nesting	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1 (4)	Increase the frequency of large feeding aggregations within Lake Okeechobee from December to March for the white ibis, great egret, and great blue heron; in most years, increase the number of nests during December/January

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
LO9	Lake Okeechobee Fish Population Density, Age Structure, and Condition	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1 (4)	Improved density, age structure, and condition of black crappie, largemouth bass, and brim in the littoral and nearshore regions of the lake; reduced relative abundance of gizzard shad, threadfin shad, and blue tilapia
LO10	Lake Okeechobee Alligator Populations and Condition	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1 (4)	Maintain present population density and condition of alligators in the lake
LO11	Lake Okeechobee Shoreline Organic Berm	Lake Okeechobee CEM Attribute	Lake Okeechobee 2.4.1 (1)	Reduce the frequency of occurrence and spatial extent of a berm of dead plant material and sediments along the western lakeshore
LO12	Lake Okeechobee Total Phosphorus Concentration	Lake Okeechobee CEM Stressor	Lake Okeechobee 2.4.2	Pelagic total phosphorus long-term average below 40 ppb
LO13	Lake Okeechobee Total Nitrogen: Phosphorus Ratio	Lake Okeechobee CEM Stressor	Lake Okeechobee 2.4.2	Pelagic total phosphorus long-term average ratio near 20:1
LO14	Lake Okeechobee Diatom: Cyanobacteria Ratio	Lake Okeechobee CEM Attribute	Lake Okeechobee [section to be added]	Pelagic long-term ratio above 1.5:1
LO15	Lake Okeechobee Algal Bloom Frequency	Lake Okeechobee CEM Attribute	Lake Okeechobee [section to be added]	Less than 5% of pelagic with >40 ppb chlorophyll *a*
LO16	Lake Okeechobee Water Clarity	Lake Okeechobee CEM Attribute	Lake Okeechobee [section to be added]	Secchi disk visible on lake bottom in nearshore zone from May to September to allow adequate light for submerged plant growth
LO17	Lake Okeechobee Phosphorus Loads	Lake Okeechobee CEM Stressor	Lake Okeechobee 2.4.2	Long-term average phosphorus loads into the lake at or below 140 metric tons/year, including inputs from atmospheric deposition

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
LO18	Lake Okeechobee Class I Water Quality Parameters	Lake Okeechobee CEM Stressor	Lake Okeechobee 2.4.2	No increase in exceedances of Class I standards due to cumulative effects of CERP activities
GE1	Number and Severity of Dry Events for the Greater Everglades	Everglades Ridge and Slough, Marl Prairie, Mangrove Estuary, and Big Cypress CEM Stressor	Greater Everglades 4.7	NSM 4.5 (or later) envelopes throughout the Greater Everglades
GE2	Hydroperiod in the Greater Everglades	Everglades Ridge and Slough, Marl Prairie, Mangrove Estuary, and Big Cypress CEM Stressor	Greater Everglades 4.7	NSM 4.5 (or later) envelopes throughout the Greater Everglades
GE3	Extreme High and Low Events in the Greater Everglades	Everglades Ridge and Slough, Marl Prairie, Mangrove Estuary, and Big Cypress CEMs Stressor	Greater Everglades 4.7	NSM 4.5 (or later) envelopes throughout the Greater Everglades
GE4	Seasonal Amplitude and Interannual Variability of Water Levels in the Greater Everglades	Everglades Ridge and Sough, Marl Prairie, Mangrove Estuary, and Big Cypress CEMs Stressor	Greater Everglades 4.7	NSM 4.5 (or later) multiyear patterns of amplitude and variability throughout the Greater Everglades
GE5	Overland Flow Volume, Velocity, Timing and Distribution	Everglades Total System CEM Stressor	Greater Everglades 4.7	NSM 4.5 (or later) predictions of regional flow patterns in the remaining Greater Everglades
GE6	Total Phosphorus Concentrations in Water Column, Soil and Plant Tissues and Effects on Marsh Community Composition	Big Cypress, Ridge and Slough, and Marl Prairie CEMs Stressor	Greater Everglades 4.3.2 for soil and 4.8 for surface water [section to be reviewed]	Restoration target for total phosphorus varies by geographic area, but overall target is to reduce total phosphorus concentrations in water and soil throughout the Greater Everglades system to promote recovery of periphyton communities; numerical target for TP will be concentration established by the ERC or as per the default value of 10 ppb in the EFA
GE7	Wetland Landscape Patterns: Freshwater and Estuarine Vegetation Mosaics	Big Cypress, Ridge and Slough, Marl Prairie, and Mangrove Estuary CEMs Attribute	Greater Everglades 4.1.2	Cease loss of pattern, location, directionality, and spatial extent of the Greater Everglades communities
GE8	Wetland Landscape Patterns: Ridge and Slough Community Sustainability	Ridge and Slough CEM Attribute	Greater Everglades 4.1.3	Maintain and restore processes that recover and sustain tree island and slough patterns

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
GE9	Wetland Landscape Patterns: Tidal Creek Sustainability	Mangrove Estuary CEM Attribute	Greater Everglades 4.1.4	Maintain and restore processes that recover and sustain tidal creeks
GE10	Wetland Landscape Patterns: Marl Prairie Cape Sable Sparrow Habitat	Marl Prairie CEM Attribute	Greater Everglades 4.1.5	Recover tussock plant community habitats supporting Cape Sable Sparrows
GE11	Wetland Trophic Relationships: Regional Populations of Fishes, Crayfish, Grass Shrimp, and Herps	Big Cypress, Ridge and Slough, Marl Prairie, and Mangrove Estuary CEMs Attribute	Greater Everglades 4.2.1 and 4.2.2	Recover production and size distributions, abundance, and seasonal densities consistent with predrainage hydropatterns and salinities in freshwater and estuarine wetlands
GE12	Wetland Trophic Relationships: Wading Bird Foraging Patterns in Overdrained Wetlands	Marl Prairie CEM Attribute	Greater Everglades 4.2.3 (expanded to all Greater Everglades until analysis of SRF data reveal value of continuing SRF)	Increase flock sizes and numbers of birds foraging in overdrained southern marl prairies
GE13	Wetland Trophic Relationships: Wading Bird Nesting Patterns	Total System (?) CEM Attribute Move to Total System section?	Greater Everglades and Lake Okeechobee 4.2.4	Recover predrainage patterns of colony locations, timing and abundance, including recovery of estuarine super colonies (locations and frequency)
GE14	Wetland Trophic Relationships: American Alligator Distribution, Size, Nesting, and Condition (Health)	Big Cypress, Ridge and Slough, Marl Prairie, and Mangrove Estuary CEMs Attribute	Greater Everglades 4.2.5	Recover abundance, distribution, and health patterns consistent with predrainage hydrology, including return of predrainage abundance to marl prairies and mangrove estuaries
GE15	Wetland Trophic Relationships: Periphyton Mat Production and Composition	Ridge and Slough, and Marl Prairie CEMs Attribute	Greater Everglades 4.3.1	Increase periphyton mat cover, organic content, percent noncalcareous algae and diatom composition, and marl accretion
GE16	Wetland Trophic Relationships: Mangrove Forest Production/Soil Accretion	Mangrove Estuary CEM Attribute	Greater Everglades [section to be added]	Sustain or restore forest production and soil accretion
GE17	American Crocodile: Juvenile Growth and Survival	Mangrove Estuary and Florida Bay CEMs Attribute	Greater Everglades and Southern Estuaries 4.4	Increase juvenile growth and survival in Florida Bay and adjacent mainland estuaries to match these parameters at North Key Largo and Turkey Point
GE18	Total Phosphorus Loads at Inflows to Everglades Protection Area	Big Cypress, Ridge and Slough, and Marl Prairie Stressor	Greater Everglades [section to be added]	Reduce TP loads from inflow structures into the Greater Everglades; load reduction targets vary by geographic area

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
GE19	Sulfate Concentrations	Big Cypress, Ridge and Slough, and Marl Prairie Stressor From: South Florida Ecosystem Assessment: Phase I/II - Everglades Stressor Interactions (EPA 2001)	Greater Everglades [section to be added]	Maintain or reduce concentrations to 1 ppm or less in surface water throughout the Greater Everglades
GE20	Conductivity	Big Cypress, Ridge and Slough, and Marl Prairie Stressor Source???	Greater Everglades [section to be added]	Maintain or reduce to Florida Class III standard of 1,275 umhos/cm or maintain a less than 20% increase in deseasonilized temperature-corrected conductivity at all stations
GE21	Coastal Salinity Gradients	Mangrove Estuary CEM Attribute	Greater Everglades 3.2.2 (?)	Push the salinity gradients seaward in the mangrove estuaries due to restoration of pre-drainage freshwater flow volume, timing and distribution. Maintain broad coastal gradients of salinity in the southern Everglades, due to the restoration pre-drainage freshwater flow, given predicted rates of sea level rise during the nest century.
SE1	Surface Water Discharges to Biscayne Bay	Biscayne Bay CEM Stressor	Southern Estuaries	Measure freshwater flows into Biscayne Bay at all structures to determine salinity effects
SE2	Southern Estuaries Salinity Pattern	Florida Bay, Biscayne Bay, and Mangrove Estuary CEMs Stressor	Southern Estuaries	For Florida Bay, recover a range of conditions, including less abrupt salinity changes, reduced extremes, reduced hypersaline conditions, lower salinities; for Biscayne Bay, recover mesohaline salinity patterns in nearshore waters; for mainland mangrove estuary, recover oligohaline salinity conditions in coastal lakes and bays.

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
SE3	Submerged Aquatic Vegetation Distribution, Abundance and Community Structure	Florida Bay, Biscayne Bay and Mangrove Estuary CEMs Attribute	Southern Estuaries	For Florida Bay, recover seagrass beds over much of bay; replace *Thalassia* monoculture with mixed *Thalassia*/*Halodule*; for Biscayne Bay, recover *Halodule* in nearshore waters; for mangrove estuaries, increase cover and duration of *Chara*, *Ruppia*, *Najas* and *Utricularia*.
SE4	Juvenile Pink Shrimp and Associated Epifauna	Florida Bay and Biscayne Bay CEMs Attribute	Southern Estuaries	Increase abundance of juvenile shrimp; increase abundance and diversity of epifaunal fish and macroinvertebrates associated with submerged aquatic vegetation, including the southwest coast.
SE5	Shoreline Fish Community	Florida Bay and Biscayne Bay CEMs Attribute	Southern Estuaries	Increase diversity and density of fish assemblages in nearshore waters.
SE6	Juvenile Spotted Seatrout	Florida Bay CEM Attribute	Southern Estuaries	Increase distribution and abundance of juvenile trout in north-central and western Florida Bay.
SE7	Roseate Spoonbill Nesting Patterns in Northeast Florida Bay	Florida Bay and Mangrove Estuary CEMs Attribute	Southern Estuaries	To restore the number of nesting pairs of spoonbills to the northeast area of Florida Bay.
SE8	Nutrient Concentrations (TP and TN)	Florida Bay, Biscayne Bay and Mangrove Estuary CEMs Stressor	Southern Estuaries [section to be reviewed]	Reduce estuarine water nutrient concentrations so as not to exceed current levels and to maintain or enhance oligotrophic conditions
SE9	Nutrient Loads (TP and TN)	Florida Bay, Biscayne Bay, and Mangrove Estuary CEMS Stressor	Southern Estuaries (section to be reviewed]	Reduce nutrient loads to the estuaries so as not to exceed current levels and to meet future TMDL targets established for the estuaries
SE10	Algal Bloom Frequency	Florida Bay and Biscayne Bay Stressor	Southern Estuaries [section to be reviewed]	Decrease or cause no net increase in frequency of algal blooms from current conditions
SE11	Water Clarity (PAR)	Florida Bay and Biscayne Bay Attribute	Southern Estuaries [section to be reviewed]	Improve or cause no further degradation in existing water clarity to promote establishment of seagrasses and other SAV.
TS1	Continuity: Water Surface Elevations Across Barriers	Total System CEM Stressor	Greater Everglades	Eliminate stage differences across any remaining internal structures

NUMBER	TITLE	SOURCE	MONITORING MODULE AND SECTION	RESTORATION EXPECTATIONS
TS2	Sheetflow: Volume of Water Across Transects in the WCAs and ENP	Total System CEM Stressor	Greater Everglades	Restore overland flow to similar volume and timing of flow predicted by NSM 4.5
TS3	Mercury Bioaccumulation	Total System CEM Stressor	Greater Everglades, Northern Estuaries, Lake Okeechobee, Southern Estuaries	Decrease or cause no net increase in levels of mercury bioaccumulation in tissue of fish and/or fisheating fauna; levels should not exceed biological effect thresholds established by the state
WS1	Lake Okeechobee Service Area - Frequency of Water Restrictions	Florida Statutes 373.0361(2)(a)(1)	Water Supply and Flood Protection	Meet demands on water supply during droughts up to a 1-in-10 year frequency
WS2	Frequency of Water Restrictions for the Lower East Coast Service Area	Florida Statutes 373.0361(2)(a)(1)	Water Supply and Flood Protection	Meet demands on water supply during droughts up to a 1-in-10 year frequency
WS3	Potential for High Water Levels in the South Miami-Dade Agricultural Area	C&SF Restudy	Water Supply and Flood Protection	Maintain existing flood protection in accordance with applicable law
WS4	Prevent Saltwater Intrusion of Biscayne Bay Aquifer and Meet MFL Criteria for the Biscayne Aquifer	Florida Statute 373.044	Water Supply and Flood Protection	Monitor canal stages at coastal structures and monitor Biscayne aquifer levels and salinity
WS5	Prevent Saltwater Intrusion of Biscayne Bay Aquifer in South Miami-Dade County	C&SF Restudy	Water Supply and Flood Protection	Monitor canal stages at coastal structures and monitor Biscayne aquifer levels and salinity